Attorn y Docket NC 80,124
Application Serial No. 09/788,407

Claims

1. (currently amended) An elongated truss boom adapted to be flattened and coiled to a stowed configuration comprising:

a plurality of longerons arranged parallel to and equidistant from a longitudinal axis of the truss boom forming a polygonal cross section normal to the longitudinal axis;

a plurality of fixed battens; and

a plurality of moveable battens;

wherein the fixed battens and the moveable battens are coupled to the longerons to form a plurality of polygonal frame members which are located in a series of planes normal to the longitudinal axis; ~~and~~

wherein the fixed battens interconnect the longerons to form two opposing rigid ladder shaped structures which are moveably connected by movable battens; and wherein a first pair of longerons on one of said two opposing ladder shaped structures are spaced apart less than a second pair of longerons on a second of said two opposing ladder shaped structures, so that when the moveable battens are closed and the ladder shaped structures are together when the truss boom is flattened the four longerons are substantially coplanar to permit compact stowing.

2. (cancelled)

3. (currently amended) An elongated truss boom as claimed in claim ~~2~~ 1, further comprising a plurality of diagonals that interconnect adjacent polygonal frame members.

4. (original) An elongated truss boom as claimed in claim 1, wherein the longerons have a corrugated cross section.

5. (original) An elongated truss boom as claimed in claim 4, wherein the corrugated cross section is "L" shaped.

6. (cancelled)

Attorney Docket NC 80,124
Application Serial No. 09/788,407

7. (original) An elongated truss boom as claimed in claim 1, further comprising a self actuation means which biases the moveably coupled battens and the truss boom in an expanded position.

8. (original) An elongated truss boom as claimed in claim 1, further comprising a mechanically actuated locking means which releases the truss boom for stowage and locks the deployed truss boom in an expanded configuration.

9-15 (cancelled).

16. (new) An elongated truss boom as in claim 1, further including a drum for stowing the flattened truss boom by rolling the flattened truss boom into a coil around the drum.

17. (new) An elongated truss boom as in claim 1, further including instrumentation attached to fixed battens extending above and below the stowed truss boom so that upon elongating the boom the instrumentation is located at pre-determined points along the boom.

18. (new) An elongated truss boom as in claim 1, wherein the longerons have a flat ribbon shape when the boom is stowed and a corrugated cross-sectional shape when the boom is deployed.